

May 23, 2003

1. (Currently Amended) A serodiagnostic assay for fungal antibody comprising:

(i) ~~preparing fungal cell culture supernatants;~~

(ii)(i) reacting a said fungal cell culture supernatants of claim 30 with sera from a test subject; and

(iii)(ii) determining the serum antibody level of said test subject.

2. (Currently Amended) The serodiagnostic assay of claim 1, wherein said

fungal cell culture supernatants ~~in steps (i) and (ii) are~~ has been prepared and is used at a temperature above the freezing point.

3. (Currently Amended) The serodiagnostic assay of claim 1, wherein said

fungal cell culture supernatants ~~in steps (i) and (ii) are~~ has been prepared and is used at 20 °C.

4. (Currently Amended) The serodiagnostic assay of claim 1, wherein said

fungal cell culture supernatants ~~in steps (i) and (ii) are~~ has been prepared under aeration condition.

5. (Currently Amended) The serodiagnostic assay of claim 2, wherein said

fungal cell culture supernatants ~~in steps (i) and (ii) are~~ has been prepared under aeration condition.

6. (Original) The serodiagnostic assay of claim 4, wherein said aeration condition is provided by gentle shaking.

7. (Original) The serodiagnostic assay of claim 5, wherein said aeration condition is provided by gentle shaking.

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8. (Currently Amended) The serodiagnostic assay of claim 1, wherein said determining comprises an enzyme-linked immunosorbent assay (ELISA) ~~is used in step (iii) for determining the serum antibody level.~~

9. (Currently Amended) A serodiagnostic assay for yeast antibodies comprising the steps of reacting a yeast cell culture supernatant of claim 30 with sera from a test subject; and determining the serum level of said test subject ~~The serodiagnostic assay of claim 1, wherein said assay is for the detection of yeast antibodies and said fungal cell culture supernatants are substituted with yeast cell culture supernatants.~~

10. (Currently Amended) A serodiagnostic assay for fungal and yeast antibodies comprising:

- (i) reacting a preparing fungal and yeast cell culture supernatants mixture;
- (ii) of claim 30 reacting said fungal and yeast cell culture supernatants with sera from a test subject; and
- (iii)(ii) determining the serum antibody level of said test subject.

11. (Original) The serodiagnostic assay according to claim 1, wherein the test subject is animal or human.

12. (Original) The serodiagnostic assay according to claim 10, wherein the test subject is animal or human.

Claims 13-29. (Canceled)

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D1 } 30. (Currently Amended) A fungal or yeast cell culture supernatant as antigenic source for detecting level of antibodies from a sample test subject, said fungal or yeast cell culture supernatant containing fungal or yeast components shed into the supernatant during culturing; said antigenic source having a reduction of activity of less than 20% as measured by ELISA after treatment with protease in 0.25M TRIS buffer at pH 7.2.

31. (Previously Added) The fungal or yeast cell culture supernatant of claim 30, wherein said supernatant is prepared and used at a temperature above the freezing point.

32. (Previously Added) The fungal or yeast cell culture supernatant of claim 31, wherein said supernatant is prepared and used at 20 °C .

33. (Previously Added) The fungal or yeast cell culture supernatant of claim 31, wherein said supernatant is prepared under aeration condition.

34. (Previously Added) The fungal or yeast cell culture supernatant of claim 33, wherein said aeration condition is provided by gentle shaking.

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D1 } 35. (Previously Added) The fungal or yeast cell culture supernatant of claim 30, wherein said supernatant displays specific antibody affinity such that only serum antibodies of the same fungus or yeast are being detected.

36. (Previously Added) The fungal or yeast cell culture supernatant of claim 35, consisting of species selected from the group of *Alternaria*, *Baker's Yeast*, *Chaetomium* and *Fusarium*.

37. (Previously Added) The fungal or yeast cell culture supernatant of claim 30, wherein said supernatant displays generic antibody affinity such that said supernatant can be used to detect serum antibodies to a large panel of different fungal or yeast species.

38. (Previously Added) The fungal or yeast cell culture supernatant of claim 37, consisting of species selected from *Aspergillus* and *Paecilomyces*.

39. (Previously Added) The fungal or yeast cell culture supernatant of claim 30, wherein said supernatant displays antibody affinity towards serum antibodies of the same fungal or yeast species as well as serum antibodies of other fungal or yeast species.

40. (Previously Added) The fungal or yeast cell culture supernatant of claim 39, consisting of species selected from the group of *Bipolaris*, *Neosatorya*, *Penicillium*, *Stachybotrys* and *Uliocladium*.

41. (Previously Added) The fungal or yeast cell culture supernatant of claim 30 displaying antigenicity unique to a particular fungal or yeast species.

42. (Currently Amended) The fungal or yeast cell culture supernatant of claim 30 wherein said antibodies are anti-aflatoxin antibodies for detecting aflatoxins.

43. (Currently Amended) A fungal cell culture supernatant of *Biopolaris* as an antigenic source for detecting antibody levels from a sample test subject, said fungal cell culture supernatant containing fungal components shed into the supernatant during culturing said fungal cell culture displaying antigenicity towards antibody detection in a serodiagnostic assay for fungal antibody which comprises preparing said Bipolaris fungal cell culture supernatant; reacting said fungal cell culture supernatant with sera from a test subject; and determining the serum antibody level of said test subject.

44. (Currently Amended) The fungal cell culture supernatant of *Cladosporium* as an antigenic source for detecting antibody levels from a sample test subject, said fungal cell culture supernatant containing fungal components shed into the supernatant during culturing said fungal cell culture displaying false positive indication under alkaline condition towards antibody detection in a serodiagnostic assay for fungal antibody which comprises preparing said Cladosporium fungal cell culture supernatant; reacting said fungal cell culture supernatant with sera from a test subject; and determining the serum antibody level of said test subject.

Sub D₁ } 45. (Currently Amended) A vaccine comprising a fungal or yeast cell culture supernatant of claim 30.

46. (Previously Amended) A fungal or yeast cell culture supernatant consisting essentially of nucleic acids or proteins.

47. (Previously Added) An unconcentrated filtrate of a fungal or yeast cell culture supernatant as antigenic source for detecting levels of antibodies from a sample test subject.

48. (Previously Added) The fungal or yeast cell culture supernatant of claim 47, wherein said supernatant is prepared and used at a temperature above the freezing point.

49. (Previously Added) The fungal or yeast cell culture supernatant of claim 48, wherein said supernatant is prepared and used at 20 °C .

50. (Previously Added) The fungal or yeast cell culture supernatant of claim 48, wherein said supernatant is prepared under aeration condition.

51. (Previously Added) The fungal or yeast cell culture supernatant of claim 50, wherein said aeration condition is provided by gentle shaking.

52. (Previously Added) A cell culture supernatant of *Chaetomium* as an antigenic source for detecting levels of antibodies specifically reacting thereto from a test subject.

53. (Currently Amended) A fungal cell culture supernatant of *Chaetomium* as an antigenic source for detecting antibody levels from a sample test subject, said fungal cell culture supernatant containing fungal components shed into the supernatant during culturing said fungal cell culture ~~displaying antigenicity towards antibody detection in a serodiagnostic assay for fungal antibody which comprises preparing said *Chaetomium* fungal cell culture supernatant; reacting said fungal cell culture supernatant with sera from a test subject; and determining the serum antibody level of said test subject.~~

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54. (new) The fungal cell culture supernatant of *Cladosporium* displaying false positive indication under alkaline condition towards antibody detection in a serodiagnostic assay for fungal antibody which comprises preparing said *Cladosporium* fungal cell culture supernatant; reacting said fungal cell culture supernatant with sera from a test subject; and determining the serum antibody level of said test subject.

Sub D₁ } 55. (new) A vaccine comprising a fungal or yeast cell culture supernatant of claim 47.

56. (new) The fungal or yeast cell culture supernatant of claim 47; said; said antigenic source having a reduction of activity of less than 20% as measured by ELISA after treatment with protease in 0.25M TRIS buffer at pH 7.2.

57. (new) A cell culture supernatant of *Bipolaris* as an antigenic source for detecting levels of antibodies specifically reacting thereto from a test subject.

58. (new) A cell culture supernatant of *Cladosporium* as an antigenic source for detecting levels of antibodies specifically reacting thereto from a test subject.

59. (new) A method of claim 1 wherein said fungal cell culture is a *Bipolaris* fungal cell culture.

60. (new) A method of claim 1 wherein said fungal cell culture is a *Cladosporium* fungal cell culture.

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61. (new) A method of claim 1 wherein said fungal cell culture is a *Chaetomium* fungal cell culture.

62. (new) A fungal cell culture supernatant of *Chaetomium* displaying antigenicity towards antibody detection in a serodiagnostic assay for fungal antibody which comprises preparing said *Chaetomium* fungal cell culture supernatant; reacting said fungal cell culture supernatant with sera from a test subject; and determining the serum antibody level of said test subject.